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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1 and 27

[AU Docket No. 20-25; FCC 20-23; FRS 16583]

Auction of Flexible-Use Service Licenses in the 3.7–3.98 GHz Band for Next-Generation Wireless Services; Comment Sought on Competitive Bidding Procedures for Auction 107

AGENCY: Federal Communications Commission.

ACTION: Proposed rule; proposed auction procedures.

SUMMARY: In this document, the Commission announces an auction of flexible-use overlay licenses in the 3.7–3.98 GHz band (the 3.7 GHz Service), designated as Auction 107. This document proposes and seeks comment on competitive bidding procedures to be used for Auction 107.

DATES: Comments are due on or before May 1, 2020, and reply comments are due on or before May 15, 2020.

ADDRESSES: Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS) or by filing paper copies. Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (May 1, 1998). All filings in response to the Auction 107 Comment Public Notice must refer to AU Docket No. 20-25. The Commission strongly encourages interested parties to file comments electronically and requests that an additional copy of all comments and reply comments be submitted electronically to the following email address: auction107@fcc.gov.

Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <https://www.fcc.gov/ecfs>. Filers should follow the instructions provided on the website for submitting comments. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket number, AU Docket No. 20-25.

Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number. Filings can be sent by hand or

messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St. SW., Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.

U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street SW., Washington, DC 20554.

FOR FURTHER INFORMATION CONTACT: For auction legal questions, Erik Beith or Tajma Rahimic in the Auctions Division of the Office of Economics and Analytics at (202) 418-0660. For general auction questions, the Auctions Hotline at (717) 338-2868. For 3.7 GHz Service legal questions, Anna Gentry in the Wireless Telecommunications Bureau's Mobility Division at (202) 418-1991. For 3.7 GHz Service technical questions, Janet Young in the Wireless Telecommunications Bureau's Broadband Division at (202) 418-0837.

SUPPLEMENTARY INFORMATION: This is a summary of the Public Notice ([Auction 107 Comment Public Notice](#)), AU Docket No. 20-25, FCC 20-23, adopted on February 28, 2020 and released on March 3, 2020. The [Auction 107 Comment Public Notice](#) includes the following attachment: Attachment A, Proposed Upfront Payment and Minimum Opening Bid Amounts. The complete text of the [Auction 107 Comment Public Notice](#), including its attachment, is available for public inspection and copying from 8:00 a.m. to 4:30 p.m. Eastern Time (ET) Monday through Thursday or from 8:00 a.m. to 11:30 a.m. ET on Fridays in the FCC Reference Information Center, 445 12th Street SW, Room CY-A257, Washington, DC 20554. The complete text is also available on the Commission's website at www.fcc.gov/auction/107 or by using the search function for AU Docket No. 20-25 on the Commission's

ECFS web page at www.fcc.gov/ecfs. Alternative formats are available to persons with disabilities by sending an email to FCC504@fcc.gov or by calling the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY). Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated in the Auction 107 Comment Public Notice in AU Docket No. 20-25.

I. INTRODUCTION

1. By the Auction 107 Comment Public Notice, the Commission seeks comment on the procedures to be used for Auction 107, the auction of new flexible-use overlay licenses in the 3.7–3.98 GHz band (the 3.7 GHz Service). The Commission expects the bidding for licenses in Auction 107 to commence on December 8, 2020. The Commission proposes to use an ascending clock auction format for the licenses offered in Auction 107 and then hold a sealed bid assignment phase. The Auction 107 Comment Public Notice seeks comment on proposed auction procedures for bidding to acquire licenses in Auction 107.

II. LICENSES TO BE OFFERED IN AUCTION 107

2. Auction 107 will offer 5,684 new flexible-use overlay licenses for spectrum in the 3.7–3.98 GHz band throughout the contiguous United States subject to clearing requirements. The Commission adopted the 3.7 GHz Report and Order, [April 23, 2020], which describes in detail the rules applicable to the licenses offered in these 280 megahertz of spectrum. The Commission will offer up to 280 megahertz of spectrum licensed on an unpaired basis in three blocks divided into 20-megahertz sub-blocks by partial economic area (PEA) in the contiguous states and the District of Columbia (PEAs 1–41, 43–211, 213–263, 265–297, 299–359, and 361–411). The Commission will not issue flexible-use overlay licenses for Honolulu, Anchorage, Kodiak, Fairbanks, Juneau, Puerto Rico, Guam-Northern Mariana Islands, U.S. Virgin Islands, American Samoa, and the Gulf of Mexico (PEAs numbers 42, 212, 264, 298, 360, 412–416). Specifically, the A Block will cover 100 megahertz from 3.7–3.8 GHz in five 20-megahertz sub-blocks: 3700–3720 MHz (A1), 3720–3740 MHz (A2), 3740–3760 MHz (A3), 3760–3780 MHz (A4), and 3780–3800 MHz (A5). The B Block will cover 100 megahertz from 3.8–3.9 GHz in five

20-megahertz sub-blocks: 3800–3820 MHz (B1), 3820–3840 MHz (B2), 3840–3860 MHz (B3), 3860–3880 MHz (B4), and 3880–3900 MHz (B5). The C Block will cover 80 megahertz from 3.9–3.98 GHz, and four 20-megahertz sub-blocks will be licensed for flexible use: 3900–3920 MHz (C1), 3920–3940 MHz (C2), 3940–3960 MHz (C3), and 3960–3980 MHz (C4). The 20 megahertz at 3980–4000 MHz will be a guard band and not available for auction. All 3.7 GHz Service licenses will be issued for 15-year, renewable license terms. A licensee in the 3.7–3.98 GHz band may provide any services permitted under terrestrial fixed or mobile allocations, as set forth in the non-Federal Government column of the Table of Frequency Allocations in section 2.106 of the Commission’s rules, as modified by the 3.7 GHz Report and Order.

3. A list of markets in which licenses will be offered in Auction 107, including proposed upfront payment and minimum opening bid amounts, is available in Attachment A to the Auction 107 Comment Public Notice.

4. Transition of Incumbent Operations. The 3.7–4.2 GHz band currently is allocated in the United States exclusively for non-Federal use on a primary basis for Fixed Satellite Service (FSS) and Fixed Service (FS) services. In the 3.7 GHz Report and Order, the Commission modified the licenses and market access authorizations of incumbent FSS operators and FS licensees to clear the 3.7–4.0 GHz band for new flexible-use terrestrial operations. For additional information about clearing and conditions on the licenses to be offered in Auction 107, potential bidders should carefully review the 3.7 GHz Report and Order.

5. Each potential bidder is solely responsible for investigating and evaluating all technical and marketplace factors that may have a bearing on the potential uses of a license that it may seek in Auction 107. In addition to the typical due diligence considerations that the Commission encourages of bidders in all auctions, the Commission calls particular attention in Auction 107 to the clearing process and license conditions described in the 3.7 GHz Report and Order. Each applicant should closely follow releases from the Commission concerning these issues and consider carefully the technical and economic implications for commercial use of the 3.7–3.98 GHz band. The Commission makes no representations

or warranties about the use of this spectrum for particular services. Each applicant should be aware that a Commission auction represents an opportunity to become a Commission licensee, subject to certain conditions and regulations. This includes the established authority of the Commission to alter the terms of existing licenses by rulemaking, which is equally applicable to licenses awarded by auction. A Commission auction does not constitute an endorsement by the Commission of any particular service, technology, or product, nor does a Commission license constitute a guarantee of business success.

III. PROPOSED PRE-BIDDING PROCEDURES

6. In the 3.7 GHz Report and Order, the Commission decided to conduct any auction of new flexible-use licenses for the 3.7 GHz Service in conformity with the amended Part 1 rules. The Commission's Part 1 rules require each applicant seeking to bid to acquire licenses in a spectrum auction to provide certain information in a short-form application (FCC Form 175), including ownership details and numerous certifications.

7. Prohibition of Certain Communications. Section 1.2105(c)(1) of the Commission's rules provides that, subject to specified exceptions, after the short-form application filing deadline, all applicants are prohibited from cooperating or collaborating with respect to, communicating with or disclosing, to each other or any nationwide provider of communications services that is not an applicant, or, if the applicant is a nationwide provider, any non-nationwide provider that is not an applicant, in any manner the substance of their own, or each other's, or any other applicants' bids or bidding strategies (including post-auction market structure), or discussing or negotiating settlement agreements, until after the down payment deadline. Section 1.2105(c)(5)(i) defines "applicant" as including all officers and directors of the entity submitting a short-form application to participate in the auction, all controlling interests of that entity, as well as all holders of partnership and other ownership interests and any stock interest amounting to 10% or more of the entity, or outstanding stock, or outstanding voting stock of the entity submitting a short-form application.

8. The operation of the rule prohibiting certain communications requires that the Commission identify nationwide providers in connection with each auction. Because the applicable

service rules for the 3.7–3.98 GHz band will allow a licensee to provide flexible terrestrial wireless services, including mobile services, the Commission’s identification of four nationwide providers in the Communications Marketplace Report suggests that it should identify those same entities as nationwide providers for purposes of 3.7 GHz licenses and Auction 107. This is consistent with the Commission’s identification of “nationwide providers” for the purpose of implementing its competitive bidding rules in Auctions 101, 102, 103 and the forward auction portion of the Broadcast Incentive Auction. Accordingly, consistent with the procedures adopted for prior auctions of flexible-use licenses for advanced wireless services, the Commission proposes to identify AT&T, Sprint, T-Mobile, and Verizon Wireless as “nationwide providers” for the purpose of implementing the Commission’s competitive bidding rules in Auction 107, including section 1.2105(c), the rule prohibiting certain communications. The Commission seeks comment on this proposal.

A. Bidding Credit Caps

9. The Commission seeks comment on establishing reasonable caps on the total amount of bidding credits that an eligible small business, very small business, or rural service provider may be awarded for Auction 107.

10. Eligibility for the small business bidding credit is determined according to a tiered schedule of small business size definitions that are based on an applicant’s average annual gross revenues for the relevant preceding period, and which determine the size of the bidding credit discount. In the 3.7 GHz Report and Order, the Commission determined that eligibility for the small business bidding credit in the auction of licenses in the 3.7–3.98 GHz band would be defined using two of the thresholds of the standardized schedule of small business sizes. Specifically, the Commission determined that an entity with average annual gross revenues for the preceding five years not exceeding \$55 million would be designated as a “small business” eligible for a 15% bidding credit, and that an entity with average annual gross revenues for the preceding five years not exceeding \$20 million would be designated as a “very small business” eligible for a 25% bidding credit. The Commission further determined that entities providing commercial communication services to a customer base of fewer than 250,000 combined

wireless, wireline, broadband, and cable subscribers in primarily rural areas would be eligible for the 15% rural service provider bidding credit. The Commission defined rural area as a county with a population density of 100 persons or fewer per square mile.

11. In the Updating Part 1 Report and Order, 80 FR 56764, September 18, 2015, the Commission established a process to implement a reasonable cap on the total amount of bidding credits that an eligible small business or rural service provider may be awarded in any auction, based on an evaluation of the expected capital requirements presented by the particular service and inventory of licenses being auctioned. The Commission determined that bidding credit caps would be implemented on an auction-by-auction basis, but resolved that, for any particular auction, the total amount of the bidding credit cap for small businesses would not be less than \$25 million, and the bidding credit cap for rural service providers would not be less than \$10 million. For Auctions 101, 102, and 103, the Commission adopted a \$25 million cap on the total amount of bidding credits that may be awarded to an eligible small business in each auction and a \$10 million cap on rural service provider bidding credits in each auction.

12. The Commission proposes to adopt the same bidding credit caps for Auction 107. Like Auctions 101, 102, and 103, the Commission believes that the range of potential use cases suitable for spectrum in the 3.7–3.98 GHz band, combined with the relatively small geographic areas for new flexible-use overlay licenses in the 3.7 GHz Service, may permit deployment of smaller scale networks with lower total costs. Moreover, past auction data suggests that the proposed caps will allow the substantial majority of eligible small businesses in the auction to take advantage of the bidding credit program. The Commission therefore believes that its proposed caps will promote the statutory goals of providing meaningful opportunities for bona fide small businesses to compete in auctions and in the provision of spectrum-based services, without compromising the Commission’s responsibility to prevent unjust enrichment and ensure efficient and intensive use of spectrum.

13. Similarly, the Commission proposes to adopt a \$10 million cap on the total amount of bidding credits that may be awarded to an eligible rural service provider in Auction 107. An entity is not eligible for a rural service provider bidding credit if it has already claimed a small business bidding credit.

The Commission anticipates that a \$10 million cap on rural service provider bidding credits will not constrain the ability of any rural service provider to participate fully and fairly in Auction 107. No rural service provider exceeded the \$10 million cap in the Broadcast Incentive Auction, Auction 101, or Auction 102. In addition, to create parity in Auction 107 among eligible small businesses and rural service providers competing against each other in smaller markets, the Commission proposes a \$10 million cap on the overall amount of bidding credits that any winning small business bidder may apply to winning licenses in markets with a population of 500,000 or less. This proposal is consistent with the approach adopted by the Commission in the Broadcast Incentive Auction, Auction 101, Auction 102, and Auction 103.

14. The Commission seeks comment on these proposed caps. Specifically, do the expected capital requirements associated with operating in the 3.7–3.98 GHz band, the potential number and value of 3.7 GHz Service licenses, past auction data, or any other considerations justify a higher cap for either type of bidding credit? Moreover, are there convincing reasons for not maintaining parity with the bidding credit caps in Auctions 101, 102, and 103? Commenters are encouraged to identify unique circumstances and characteristics of this mid-band auction that should guide the Commission in establishing bidding credit caps, and to provide specific, data-driven arguments in support of their proposals.

15. The Commission reminds applicants applying for designated entity bidding credits that they should take due account of the requirements of the Commission’s rules and implementing orders regarding de jure and de facto control of such applicants. These rules include a prohibition, which applies to all applicants (whether or not they are seeking bidding credits), against changes in ownership of the applicant that would constitute an assignment or transfer of control. Applicants should not expect to receive any opportunities to revise their ownership structure after the filing of their short- and long-form applications, including making revisions to their agreements or other arrangements with interest holders, lenders, or others in order to address potential concerns relating to compliance with the designated entity bidding credit requirements. Applicants will not be permitted to change their bidding credit type selection

(i.e., from small business to rural service provider, or vice versa) after the short-form deadline.

B. Information Procedures During the Auction Process

16. As with most recent Commission spectrum license auctions, the Commission proposes to limit information available in Auction 107 in order to prevent the identification of bidders placing particular bids until after the bidding has closed. More specifically, the Commission proposes to not make public until after bidding has closed: (1) the PEAs that an applicant selects for bidding in its short-form application (FCC Form 175), (2) the amount of any upfront payment made by or on behalf of an applicant for Auction 107, (3) any applicant's bidding eligibility, and (4) any other bidding-related information that might reveal the identity of the bidder placing a bid.

17. Bidders would have access to additional information related to their own bidding and bid eligibility. For example, bidders would be able to view their own level of eligibility before and during the auction through the FCC auction bidding system.

18. After the close of bidding, bidders' PEA selections, upfront payment amounts, bidding eligibility, bids, and other bidding-related information would be made publicly available.

19. The Commission seeks comment on the details of its proposal for implementing limited information procedures, or anonymous bidding, in Auction 107. Commenters opposing the use of anonymous bidding in Auction 107 should explain their reasoning and propose alternative information rules.

C. Upfront Payments and Bidding Eligibility

20. In keeping with the Commission's usual practice in spectrum license auctions, the Commission proposes that applicants be required to submit upfront payments as a prerequisite to becoming qualified to bid. The upfront payment is a refundable deposit made by an applicant to establish its eligibility to bid on licenses. Upfront payments protect against frivolous or insincere bidding and provide the Commission with a source of funds from which to collect payments owed at the close of bidding. The Commission's rules require that any auction applicant that, pursuant to 47 CFR 1.2105(a)(2)(xii), certifies that it is a former defaulter must submit an upfront payment equal to 50% more

than the amount that otherwise would be required. The Commission proposes upfront payments based on \$0.015 per MHz-pop. The results of these calculations will be rounded using the Commission's standard rounding procedures for auctions: results above \$10,000 are rounded to the nearest \$1,000; results below \$10,000 but above \$1,000 are rounded to the nearest \$100; and results below \$1,000 are rounded to the nearest \$10. The proposed upfront payments equal approximately half the proposed minimum opening bids, which are established as described in Section IV.A.7.a of the Auction 107 Comment Public Notice. The Commission seeks comment on these upfront payment amounts, which are specified in Attachment A to the Auction 107 Comment Public Notice. If commenters believe that these upfront payment amounts are not reasonable amounts, they should explain their reasoning and suggest an alternative approach. Commenters may wish to suggest other modifications to our proposal, such as weighting the minimum opening bid calculation using past auction prices.

21. The Commission further proposes that the amount of the upfront payment submitted by a bidder would determine its initial bidding eligibility in bidding units, which are a measure of bidder eligibility and bidding activity. The Commission proposes to assign each generic spectrum block in a given PEA a specific number of bidding units, equal to one bidding unit per \$10 of the upfront payment listed in Attachment A to the Auction 107 Comment Public Notice. The number of bidding units for one block in a given PEA is fixed, since it is based on the MHz-pops in the block, and does not change during the auction as prices change. To the extent that bidders wish to bid on multiple generic blocks simultaneously, whether within the same PEA or in different PEAs, they would need to ensure that their upfront payment provides enough eligibility to cover multiple blocks.

22. Under the Commission's proposed approach, a bidder's upfront payment would not be attributed to blocks in a specific PEA or PEAs, or to particular categories of blocks, if there is more than one. A bidder may place bids on multiple blocks in PEAs that it selected for bidding in its FCC Form 175, provided that the total number of bidding units associated with those blocks does not exceed its eligibility-based limit for the round. A bidder cannot increase its eligibility during the auction; it can only maintain its eligibility or decrease its eligibility. Thus, in calculating its upfront payment amount, and

hence its initial bidding eligibility, an applicant must determine the maximum number of bidding units on which it may wish to bid in any single round and submit an upfront payment amount covering that total number of bidding units. The Commission seeks comment on these proposals.

D. Auction Delay, Suspension, or Cancellation

23. For Auction 107, the Commission proposes that, at any time before or during the bidding process, the Office of Economics and Analytics (OEA), in conjunction with the Wireless Telecommunications Bureau (WTB), may delay, suspend, or cancel bidding in Auction 107 in the event of a natural disaster, technical obstacle, network interruption, administrative or weather necessity, evidence of an auction security breach or unlawful bidding activity, or for any other reason that affects the fair and efficient conduct of competitive bidding. In such a case, OEA would notify participants of any such delay, suspension, or cancellation by public notice and/or through the FCC auction bidding system's announcement function. If the bidding is delayed or suspended, OEA, in its sole discretion, may elect to resume the auction starting from the beginning of the current round or from some previous round, or it may cancel the auction in its entirety. The Commission emphasizes that OEA and WTB would exercise this authority solely at their discretion. The Commission seeks comment on this proposal.

IV. PROPOSED BIDDING PROCEDURES

24. The Commission proposes to conduct Auction 107 using an ascending clock auction design. Under the proposed auction format, bidding would take place in two phases. The first phase of the auction—the clock phase—would consist of successive clock bidding rounds in which bidders indicate their demands for categories of generic license blocks in specific PEAs, followed by a second phase—the assignment phase—with bidding for frequency-specific license assignments. The Commission seeks comment on bidding procedures for the two phases of Auction 107.

25. The Commission directs OEA, in conjunction with WTB, to prepare and release a technical guide supplementing the information in the [Auction 107 Comment Public Notice](#) and including the mathematical details and algorithms of the proposed auction design.

A. Clock Phase

1. Clock Auction Design

26. During the clock phase of Auction 107, bidders will indicate their demands for generic license blocks in two bidding categories in specific geographic areas—in this case, PEAs. The Commission’s proposed clock auction format would proceed in a series of rounds, with bidding being conducted simultaneously for all spectrum blocks in all PEAs available in the auction. During each bidding round, the bidding system would announce a per-block clock price for each category in each PEA, and qualified bidders would submit, for each category and PEA for which they wish to bid, the number of blocks they seek at the clock prices associated with the current round. Bidding rounds would be open for predetermined periods of time. Bidders would be subject to activity and eligibility rules that govern the pace at which they participate in the auction.

27. Under the Commission’s proposal, for each product—a category in a PEA—the clock price for a generic license block would increase from round to round if bidders indicate total demand for blocks in that product that exceeds the number of blocks available. The bidding rounds would continue until, for all products, the total number of blocks that bidders demand does not exceed the supply of available blocks. At that point, those bidders indicating demand for a product at the final price would be deemed winning bidders.

28. Following the clock phase, the assignment phase will offer clock phase winners the opportunity to bid an additional amount for licenses with specific frequencies. All winning bidders, regardless of whether they bid in the assignment phase, will be assigned licenses for contiguous blocks within a category in a PEA.

29. The Commission seeks comment on specific procedures to implement this ascending clock auction and on alternative procedures for conducting, in a timely manner, an auction of 3.7–3.98 GHz licenses.

2. Generic License Blocks in Two Categories

30. The 3.7 GHz Report and Order determined that the 3.7–3.98 GHz band will be

reconfigured and licensed in uniform 20-megahertz sub-blocks in each of 406 PEAs. The 3.7 GHz Report and Order also establishes a two-phase accelerated relocation process. In Phase I, participating incumbent space station operators would relocate their services out of blocks A1-A5 and relocate incumbent earth stations in the 46 PEAs that are subject to the Phase I deadline out of those blocks. In Phase II, participating space station operators would relocate their services out of blocks B1-B5 and C1-C4 and transition all incumbent earth stations out of all the blocks. To facilitate bidding in the clock phase, the Commission proposes to establish two categories of generic blocks in each PEA.

31. The Commission proposes that the first category of generic blocks will consist of the 20-megahertz subblocks between 3.7–3.8 GHz. This category, designated Category A, will comprise a total of five blocks: A1–A5. A second category, Category BC, will consist of the remaining sub-blocks between 3.8–3.98 GHz for a total of nine blocks: (B1–B5, C1–C4).

32. In each bidding round, a bidder will have the opportunity to bid for the quantity of generic blocks it demands in each of the two bidding categories. Bidding in the clock phase will determine a single price for all the generic blocks in each category in each PEA.

33. The Commission’s proposal for bidding on generic blocks in two categories is based on the close similarity of the blocks within each bidding category. The Commission distinguishes between Category A and Category BC to recognize that bidders may value early access to blocks A1-A5, both in the 46 PEAs subject to the Phase I incumbent earth station deadline and in other PEAs where a bidder might seek voluntary early transition of incumbent earth stations. To the extent a bidder has a preference for specific frequency licenses, the bidder may bid for its preferred blocks in the assignment phase. However, a bidder for a generic block cannot be assured that it will be assigned, or not be assigned, any particular frequency block. The Commission asks that commenters explain any concerns they may have about the interchangeability of generic blocks within the two proposed categories of generic blocks, bearing in mind potential tradeoffs between the number of categories and auction length, the ability of the auction system to assign contiguous blocks to winners of multiple blocks, and bidder manageability.

34. The Commission also seeks comment on an alternative approach to establishing bidding

categories, grouping the available blocks according to the specific clearing deadline to which incumbent earth stations are subject, i.e., Phase I or Phase II. Specifically, the Commission could designate blocks A1-A5 in the 46 PEAs that are subject to the Phase I deadline as Category P1 for clock phase bidding. And the Commission could designate all other blocks as Category P2 for clock phase bidding. Thus, under this alternative approach, the 46 PEAs that are subject to the Phase I deadline would each have two bidding categories and the 360 PEAs that are not subject to the Phase I incumbent earth station deadline would each have a single bidding category. The Commission asks commenters to consider whether the A Block licenses that would not be subject to the Phase I deadline are sufficiently interchangeable with the B and C Block licenses to be bid as a single bidding category in the clock phase, and whether this categorization would facilitate contiguous assignment across all blocks in the assignment phase.

3. Bidding Rounds

35. Under the proposed clock auction format, Auction 107 would consist of sequential bidding rounds, each followed by the release of round results. The Commission proposes to conduct bidding simultaneously for all spectrum blocks in both bidding categories for all PEAs available in the auction. In the first bidding round of Auction 107, a bidder would indicate, for each product, how many generic license blocks it demands at the minimum opening bid price. During each subsequent bidding round, the bidding system would announce a per-block clock price for each product, and qualified bidders would submit, for each product for which they wish to bid, the number of blocks they seek at the clock prices associated with the current round. Bidding rounds would be open for predetermined periods of time. Bidders would be subject to activity and eligibility rules that govern the pace at which they participate in the auction.

36. For each product, the clock price for a generic license block would increase from round to round if bidders indicate total demand for that product that exceeds the number of blocks available. The bidding rounds would continue until, for all products, the total number of blocks that bidders demand does not exceed the supply of available blocks. At that point, those bidders indicating demand for a block at the final price would be deemed winning bidders.

37. The initial bidding schedule would be announced in a public notice to be released at least one week before the start of bidding. Under the Commission's proposal, OEA would retain the discretion to adjust the bidding schedule in order to foster an auction pace that reasonably balances speed with the bidders' need to study round results and adjust their bidding strategies. Such adjustments may include changes in the amount of time for bidding rounds, the amount of time between rounds, or the number of rounds per day, and would depend upon bidding activity and other factors. The Commission seeks comment on this proposal. Commenters should address the role of the bidding schedule in managing the pace of the auction and should specifically discuss the tradeoffs in managing auction pace by bidding schedule changes, by changing the activity requirement percentage or the bid increment percentage, or by using other means.

38. The Commission proposes to conduct Auction 107 over the Internet. A bidder would be able to submit its bids using the bidding interface screens and/or using the bidding system's upload function that allows bid files in a CSV format to be uploaded. The bidding system would not allow bids to be submitted unless the bidder selected the PEAs on its FCC Form 175 and the bidder has sufficient bidding eligibility.

39. During each round of the bidding, a bidder would also be able to remove bids placed in the current bidding round. If a bidder modifies its bids for blocks in a PEA in a round, the system would take the last bid submission as that bidder's bid for the round. No bids may be withdrawn after the close of a round.

4. Stopping Rule

40. The Commission proposes a simultaneous stopping rule for Auction 107, under which all blocks in both categories in all PEAs would remain available for bidding until the bidding stops in every PEA. Specifically, the Commission proposes that bidding close for all blocks after the first round in which there is no excess demand in any product. Excess demand is calculated as the difference between the number of blocks of aggregate demand and supply. Consequently, under this approach, it is not possible to determine in advance how long Auction 107 would last. The Commission seeks comment on

its proposed simultaneous stopping rule.

5. Availability of Bidding Information

41. The Commission proposes to make public after each round of Auction 107, for each category in each PEA: the supply; the aggregate demand; the posted price of the last completed round; and the clock price for the next round. The posted price of the previous round is, generally: the start-of-round price if supply exceeds demand; the clock price of the previous round if demand exceeds supply; or the price at which a reduction caused demand to equal supply. The identities of bidders demanding blocks in a specific category or PEA would not be disclosed until after Auction 107 concludes (i.e., after the close of bidding).

42. Under the Commission's proposal, each bidder would have access to additional information related to its own bidding and bid eligibility. Specifically, after the bids of a round have been processed, the bidding system would inform each bidder of the number of blocks it holds after the round (its processed demand) for every PEA and its eligibility for the next round.

43. Limiting the availability of bidding information during the auction balances the Commission's interest in providing bidders with sufficient information about the status of their own bids and the general level of bidding in all areas and license categories to allow them to bid confidently and effectively, while restricting the availability of information that may facilitate identification of bidders placing particular bids, which could potentially lead to undesirable strategic bidding.

6. Activity Rule, Activity Upper Limit, and Reducing Eligibility

44. To ensure that the auction closes within a reasonable period of time, an activity rule requires bidders to bid actively throughout the auction, rather than wait until late in the auction before participating. For this clock auction, a bidder's activity in a round for purposes of the activity rule would be the sum of the bidding units associated with the bidder's demands as applied by the auction system during bid processing. Bidders are required to be active on a specific percentage (the activity requirement percentage) of their current bidding eligibility during each round of the auction. Failure to maintain the requisite activity level would result in a reduction in the bidder's eligibility, possibly curtailing or

eliminating the bidder's ability to place additional bids in the auction.

45. The Commission proposes to require that bidders maintain a fixed, high level of activity in each round of Auction 107 in order to maintain bidding eligibility. Specifically, the Commission proposes to require that bidders be active on between 90% and 100% of their bidding eligibility in all clock rounds, with the specific percentage within this range to be set for each round. Thus, the activity rule would be satisfied when a bidder has bidding activity on blocks with bidding units that total 90% to 100% of its current eligibility in the round. If the activity rule is met, then the bidder's eligibility does not change for the next round. If the activity rule is not met in a round, the bidder's eligibility would be reduced. The Commission proposes to calculate bidding activity based on the bids that are applied by the FCC auction bidding system. That is, if a bidder requests a reduction in the quantity of blocks it demands in a PEA, but the FCC auction bidding system cannot apply the request because demand would fall below the available supply, then the bidder's activity would reflect its unreduced demand. Under the ascending clock auction format, the FCC auction bidding system will not allow a bidder to reduce the quantity of blocks it demands in an individual PEA if the reduction would result in aggregate demand falling below (or further below) the available supply of blocks in the PEA.

46. Because a bidder's eligibility for the next round is calculated based on the bidder's demands as applied by the auction system during bid processing, a bidder's eligibility may be reduced even if the bidder submitted bids with activity that exceeds the required activity for the round. This may occur, for example, if the bidder bids to reduce its demand in PEA X by two blocks (with 10 bidding units each) and bids to increase its demand by one block (with 20 bidding units) in PEA Y. If the bidder's demand can only be reduced by one block in PEA X (because there is only one block of excess demand), the increase in PEA Y cannot be applied, and absent other bidding activity the bidder's eligibility would be reduced. To potentially help a bidder avoid having its eligibility reduced as a result of submitted bids that could not be accepted during bid processing, the Commission seeks comment on additional procedures that would allow a bidder to submit bids with associated bidding activity greater than its current bidding eligibility. For example, depending upon the bidder's overall bidding eligibility and the

activity limit percentage, a bidder could submit an “additional” bid or bids that would be considered (in price point order with its other bids) and applied as available eligibility permits during the bid processing. However, under these additional procedures, the bidder’s activity as applied by the auction system during bid processing would not exceed the bidder’s current bidding eligibility. That is, if a bidder were allowed to submit bids with associated bidding units exceeding 100% of its current bidding eligibility, its processed activity would never exceed its eligibility.

47. Specifically, the Commission seeks comment on additional procedures by which, after Round 1, a bidder may submit bids with bidding units totaling up to an activity upper limit equal to the bidder’s current bidding eligibility for the round times a percentage (the activity limit percentage) equal to or greater than 100%. For Round 1, the activity upper limit would be 100% of the bidder’s initial bidding eligibility. The Commission seeks comment on setting an initial activity limit percentage of 120% to apply to Round 2 and subsequent rounds (potentially changing it during the auction within a range of 100% and 140%), in which the Commission would implement this approach. In any bidding round, the auction bidding system would advise the bidder of its current bidding eligibility, its required bidding activity, and its activity upper limit.

48. Under the Commission’s proposed procedures, OEA would retain the discretion to change the activity requirement percentage during the auction, and the Commission seeks comment in connection with potential additional procedures on whether OEA should similarly retain the discretion to change the activity limit percentage during the auction. The bidding system would announce any such changes in advance of the round in which they would take effect, giving bidders adequate notice to adjust their bidding strategies.

49. The Commission invites comment on this activity rule proposal and it further seeks comment on using an activity upper limit to address the potential for loss of bidding eligibility under some circumstances. The Commission also encourages commenters to address whether the Commission should set the activity requirement percentage between 90% and 100% for each round and, should the Commission adopt an activity upper limit, whether to set the activity limit percentage between 100% and

140%. Further, the Commission seeks comment on where to set these percentages initially. The Commission also seeks comment on the relationship between the proposed activity rules and the ability of bidders to switch their demands across PEAs. The Commission encourages any commenters that oppose the proposed range for the activity requirement percentage and the activity limit percentage range described herein to explain their reasons with specificity.

50. Missing bids. The Commission points out that under the proposed clock auction format, bidders are required to indicate their demands in every round, even if their demands at the new round's prices are unchanged from the previous round. Missing bids—bids that are not reconfirmed—are treated by the auction bidding system as requests to reduce to a quantity of zero blocks for the product. If these requests are applied, or applied partially, then a bidder's bidding activity, and its bidding eligibility for the next round, may be reduced.

51. For Auction 107, the Commission does not propose to provide for activity rule waivers to preserve a bidder's eligibility. The Commission notes that its proposal to permit a bidder to submit bids with bidding activity greater than its eligibility, within the precise limits described herein, would address some of the circumstances under which a bidder risks losing bidding eligibility and otherwise could wish to use a bidding activity waiver, while minimizing any potential adverse impacts on bidder incentives to bid sincerely and on the price setting mechanism of the clock auction. This approach not to allow waivers is consistent with the ascending clock auction procedures used in other FCC clock auctions. The clock auction relies on precisely identifying the point at which demand decreases to equal supply to determine winning bidders and final prices. Allowing waivers would create uncertainty with respect to the exact level of bidder demand and interfere with the basic clock price-setting and winner determination mechanism. Moreover, uncertainty about the level of demand would affect the way bidders' requests to reduce demand are processed by the bidding system. The Commission seeks comment on this approach.

7. Acceptable Bids

a. Minimum Opening Bids

52. As part of the pre-bidding process for each auction, the Commission seeks comment on

the use of a minimum opening bid amount and/or reserve price, as mandated by section 309(j) of the Communications Act of 1934, as amended.

53. The Commission proposes to establish minimum opening bid amounts for Auction 107. The bidding system will not accept bids lower than these amounts. Based on the Commission's experience in past auctions, setting minimum opening bid amounts judiciously is an effective tool for accelerating the competitive bidding process. For Auction 107, the Commission proposes to establish initial clock prices, or minimum opening bids, by PEA.

54. The Commission does not propose to establish any aggregate reserve price in Auction 107. The Commission is not aware at this time of circumstances that require establishment of an aggregate reserve price in the public interest for the auction of 3.7 GHz Service licenses and propose only the per product minimum opening bids that it discusses here. The Commission seeks comment on this issue.

55. For Auction 107, the Commission proposes to calculate minimum opening bid amounts using a formula based on bandwidth and license area population, which is similar to its approach in many previous spectrum auctions. The Commission proposes to use a calculation based on \$0.03 per MHz-pop. The Commission seeks comment on these minimum opening bid amounts, which are specified in Attachment A to the Auction 107 Comment Public Notice. If commenters believe that these minimum opening bid amounts would result in unsold licenses, are not reasonable amounts, or should instead operate as reserve prices, they should explain their reasoning and propose an alternative approach. Commenters may wish to suggest other modifications to the Commission's proposal, such as weighting the minimum opening bid calculation using past auction prices. Commenters should support their claims with valuation analyses and suggested amounts or formulas for reserve prices or minimum opening bids.

56. In establishing minimum opening bid amounts, the Commission particularly seeks comment on factors that could reasonably affect bidders' valuation of the spectrum, including the type of service offered, market size, population covered by the proposed facility, and any other relevant factors.

57. Commenters may also wish to address the general role of minimum opening bids in

managing the pace of the auction. For example, commenters could compare using minimum opening bids—e.g., by setting higher minimum opening bids to reduce the number of rounds it takes licenses to reach their final prices—to other means of controlling auction pace, such as changing the bidding schedule, the activity requirement percentage, or the bid increment percentage.

b. Clock Price Increments

58. Under the Commission’s proposed clock phase procedures for Auction 107, after bidding in the first round and before each subsequent round, the FCC auction bidding system would announce the start-of-round price and the clock price for the upcoming round—that is, the lowest price and the highest price at which bidders can specify the number of blocks they demand during the round. The start-of-round price is also referred to as the posted price of the previous round. As long as aggregate demand for blocks in the product exceeds the supply of blocks, the start-of-round price would be equal to the clock price from the prior round. If demand equaled supply at a price in a previous round, then the start-of-round price for the next round would be equal to the price at which demand equaled supply. If demand was less than supply in the previous round, then the start-of-round price for the next round would not increase.

59. The Commission proposes to set the clock price for blocks in a specific product for a round by adding a percentage increment to the start-of-round price. For example, if the start-of-round price for a block in a given PEA is \$10,000, and the percentage increment is 20%, then the clock price for the round will be \$12,000. The result will be rounded up to the nearest \$1,000.

60. The Commission proposes to set the increment percentage within a range of 5% to 20% inclusive, to set the initial increment percentage at 10%, and potentially to adjust the increment as rounds continue. The proposed 5% to 20% increment range will allow the Commission to set a percentage that manages the auction pace and takes into account bidders’ needs to evaluate their bidding strategies while moving the auction along quickly.

61. The Commission seeks comment on these proposed procedures.

c. Intra-Round Bids

62. The Commission proposes generally to permit a bidder to make intra-round bids by indicating a point between the start-of-round price and the clock price at which its demand for blocks changes. In placing an intra-round bid, a bidder would indicate a specific price and a quantity of blocks it demands if the price for blocks should increase beyond that price. For example, if a bidder has processed demand of 3 blocks at the start of the round price of \$200, but wishes to hold only 2 blocks if the price increases by more than \$10 (assuming the bid increment is more than \$10), the bidder will indicate a bid quantity of 2 at a price of \$210 (\$200+\$10). Similarly, if the bidder wishes to reduce its demand to 0 if the price increases above \$200 at all, the bidder will indicate a bid quantity of 0 at the start-of-round price of \$200.

63. Intra-round bids would be optional; a bidder may choose to express its demands only at the clock prices. This proposal to permit intra-round bidding would allow the auction system to use relatively large increments, thereby speeding the auction, without running the risk that a jump in the clock price will overshoot the market clearing price—the point at which demand for blocks equals the available supply. The Commission seeks comment on the proposal to allow intra-round bids.

8. Bids to Change Demand, Bid Types, and Bid Processing

64. Under the ascending clock auction format the Commission proposes for Auction 107, a bidder would indicate in each round the number of blocks in each product that it demands at a given price. A bidder that wishes to change the quantity it demands (relative to its demands from the previous round as processed by the bidding system) would express its demands at the clock price or at an intra-round price. A bidder that is willing to maintain the same demand in a product at the new clock price would bid for that quantity at the clock price, indicating that it is willing to pay up to that price, if need be, for the specified quantity. Bids to maintain demand would always be applied by the auction bidding system.

65. In order to facilitate bidding for multiple blocks in a PEA, the Commission proposes that bidders will be permitted to make two types of bids: simple bids and switch bids. A “simple” bid indicates a desired quantity of blocks in a category at a price (either the clock price or an intra-round

price). A “switch” bid allows the bidder to request to move its demand for a quantity of blocks from the A category to the BC category, or vice versa, within the same PEA at a price for the “from” category (either the clock price or an intra-round price).

66. The Commission does not propose to incorporate any form of package bidding procedures into the clock phase of Auction 107. Package bidding would add complexity to the bidding process, and the Commission does not see significant benefit from such procedures, given the clock auction and assignment phase format it is proposing. A bidder may bid on multiple blocks in a PEA and in multiple PEAs. The Commission proposes that the assignment phase will assign contiguous blocks to winners of multiple blocks in a category in a PEA and give bidders an opportunity to express their preferences for specific frequency blocks, thereby facilitating aggregations of licenses.

67. The Commission proposes bid processing procedures that the auction bidding system would use, after each bidding round, to process bids to change demand to determine the processed demand of each bidder for each product and a posted price for each product that would serve as the start-of-round price for the next round.

a. No Excess Supply Rule for Bids to Reduce Demand

68. Under the ascending clock auction format, the FCC auction bidding system will not allow a bidder to reduce the quantity of blocks it demands in a product if the reduction would result in aggregate demand falling below (or further below) the available supply of blocks in the product. Therefore, if a bidder submits a simple bid to reduce the number of blocks for which it has processed demand as of the previous round, the FCC auction bidding system will treat the bid as a request to reduce demand that will be applied only if the “no excess supply” rule would be satisfied. Similarly, if a bidder submits a switch bid to move its demand for a quantity of blocks from the A category to the BC category within the same PEA, the FCC auction bidding system will treat the bid as a request that will be applied only if the “no excess supply” rule would be satisfied for the A category in the PEA.

b. Eligibility Rule for Bids to Increase Demand

69. The bidding system will not allow a bidder to increase the quantity of blocks it demands

in a product if the total number of bidding units associated with the bidder's demand exceeds the bidder's bidding eligibility for the round. Therefore, if a bidder submits a simple bid to increase the number of blocks for which it has processed demand as of the previous round, the FCC auction bidding system will treat the bid as a request to increase demand that will be applied only if that would not cause the bidder's activity to exceed its eligibility. The eligibility rule for bids to increase demand does not apply to switch bids because the bidder's processed activity does not change when a switch bid is applied.

c. Partial Application of Bids

70. Under our proposed bid processing procedures, a bid (simple bid or switch bid) that involves a reduction from the bidder's previous demands could be applied partially—that is, reduced by fewer blocks than requested in the bid—if excess demand is insufficient to support the entire reduction. A switch bid may be applied partially, but the increase in demand in the “to” category will always match in quantity the reduction in the “from” category. A simple bid to increase a bidder's demand could be applied partially if the total number of bidding units associated with the bidder's demand exceeds the bidder's bidding eligibility for the round.

d. Processed Demands

71. The Commission proposes to process bids to change demand in order of price point after a round ends, where the price point represents the percentage of the bidding interval for the round. For example, if the start-of-round price is \$5,000 and the clock price is \$6,000, a price of \$5,100 will correspond to the 10% price point, since it is 10% of the bidding interval between \$5,000 and \$6,000. Bids to maintain demand are always applied before the bidding system considers bids to change demand. Under this proposal, the FCC auction bidding system would process bids to change demand in ascending order of price point, first considering intra-round bids in order of price point and then bids at the clock price. The system would consider bids at the lowest price point across all PEAs, then look at bids at the next price point in all areas, and so on. The Commission proposes that, if there are multiple bids at a single price point, the system will process bids in order of a bid-specific pseudo-random number. As it considers each submitted bid during bid processing, the FCC auction bidding system would determine the

extent to which there is excess demand in each PEA at that point in the processing in order to determine whether a bidder's request to reduce demand can be applied. Likewise, the auction bidding system would evaluate the activity associated with the bidder's most recently determined demands at that point in the processing to determine whether a request to increase demand can be applied.

72. Because in any given round some bidders may request to increase demands for licenses while others may request reductions, the price point at which a bid is considered by the auction bidding system can affect whether it is applied. In addition to proposing that bids be considered by the system in increasing order of price point, the Commission further proposes that bids not applied because of insufficient aggregate demand or insufficient eligibility be held in a queue and considered, again in order, if there should be excess demand or sufficient eligibility later in the processing after other bids are processed.

73. Therefore, under the Commission's proposed procedures, once a round closes, the auction system would process bids to change demand by first considering the bid submitted at the lowest price point and determining the maximum extent to which that bid can be applied given bidders' demands as determined at that point in the bid processing. If the bid can be applied (either in full or partially), the number of licenses the bidder holds at that point in the processing would be adjusted, and aggregate demand would be recalculated accordingly. If the bid cannot be applied in full, the unfulfilled bid, or portion thereof, would be held in a queue to be considered later during bid processing for that round. The FCC auction bidding system would then consider the bid submitted at the next highest price point, applying it in full, in part, or not at all, given the most recently determined demands of bidders. Any unfulfilled requests would again be held in the queue, and aggregate demand would again be recalculated. Every time a bid or part of a bid is applied, the unfulfilled bids held in the queue would be reconsidered, in the order of the original price points of the bids (and by pseudo-random number, in the case of tied price points). The auction bidding system would not carry over unfulfilled bid requests to the next round, however. The bidding system would advise bidders of the status of their bids when round results are released.

e. Price Determination

74. The Commission further proposes bid processing procedures that would determine, based on aggregate demand, the posted price for each product for the round that will serve as the start-of-round price for the next round. Under the Commission's proposal, the uniform price for all of the blocks in a product would increase from round to round as long as there is excess demand for blocks in the product but would not increase if aggregate demand does not exceed the available supply of blocks.

75. The Commission proposes that if, at the end of a round, the aggregate demand for blocks in the product exceeds the supply of blocks, the posted price would equal the clock price for the round. If a reduction in demand was applied during the round and caused demand in the product to equal supply, the posted price would be the price at which the reduction was applied. If aggregate demand is less than or equal to supply and no bid to reduce demand was applied for the product, then the posted price would equal the start-of-round price for the round. The range of acceptable bid amounts for the next round would be set by adding the percentage increment to the posted price.

76. When a bid to reduce demand can be applied only partially, the uniform price for the product would stop increasing at that point, since the partial application of the bid would result in demand falling to equal supply. Hence, a bidder that makes a bid to reduce demand that cannot be fully applied would not face a price for the remaining demand that is higher than its bid price.

77. After the bids of the round have been processed, if the stopping rule has not been met, the FCC auction bidding system would announce clock prices to indicate a range of acceptable bids for the next round. Each bidder would be informed of its processed demand and the extent of excess demand for blocks in each product.

78. The Commission seeks comment on its proposals regarding bid processing for Auction 107.

9. Winning Bids in the Clock Phase

79. Under the Commission's proposed clock auction format for Auction 107, bidders with processed demand for a product at the time the stopping rule is met will become the winning bidders of

licenses corresponding to that number of blocks and will be assigned specific frequencies in the assignment phase. The final clock phase price for a generic block in a product would be the posted price for the final round. This and other Auction 107 bid processing details are addressed in the Clock Phase Technical Guide.

B. Assignment Phase

80. Following the conclusion of the clock phase, the Commission proposes to conduct an assignment phase using a series of single-round sealed-bid bidding rounds, where each clock phase winning bidder will have the opportunity to indicate its preferences for specific frequency licenses corresponding to the generic blocks it won in the clock phase. A bidder will be assigned contiguous frequencies for blocks it wins within each category and PEA regardless of whether it chose to bid in the assignment phase.

1. Sequencing and Grouping of PEAs

81. The Commission proposes to sequence assignment rounds to make it easier for bidders to incorporate frequency assignments from previously assigned areas into their bid preferences for other areas, recognizing that bidders winning multiple blocks of licenses generally will prefer contiguous blocks across adjacent PEAs. To that end, the Commission proposes to conduct rounds for the largest markets first to enable bidders to establish a “footprint” from which to work.

82. Specifically, the Commission proposes to conduct a separate assignment round for each of the top 20 PEAs and to conduct these assignment rounds sequentially, beginning with the largest PEAs. Once the top 20 PEAs have been assigned, the Commission proposes to conduct, for each Regional Economic Area Grouping (REAG), a series of assignment rounds for the remaining PEAs within that region. In Auction 1002, the Commission conducted sequential rounds for the top 40 PEAs and for Auction 102, it did the same. The Commission altered its proposal for Auction 103, in order to further speed up the assignment phase by including PEAs 21-40 in the simultaneous REAG assignment rounds. The Commission’s experience in Auction 1002 and Auction 102 suggests that this proposed change will not adversely affect bidders. The Commission will consider the results of Auction 103, as

well as any commenter input, before determining its final procedures. The six REAGs are: Northeast, Southeast, Great Lakes, Mississippi Valley, Central, and West.

83. The Commission further proposes, where feasible, to group into a single market for assignment any non-top 20 PEAs within a region in which the same winning bidders need to be assigned the same number of blocks in each category, and all are subject to the small markets bidding cap or all are not subject to the cap, which will also help maximize contiguity across PEAs. The Commission proposes to sequence the assignment rounds within a REAG in descending order of population for a PEA group or individual PEA. The Commission further proposes to conduct the bidding for the different REAGs in parallel in order to reduce the total amount of time required to complete the assignment phase.

84. The Commission seeks comment on these proposals for sequencing assignment rounds, including conducting separate rounds for the top 20 PEAs, and on our proposal to group PEAs for bidding under some circumstances within REAGs.

2. Acceptable Bids and Bid Processing

85. Under the Commission's proposal, in each assignment round, a bidder will be asked to assign a price to one or more possible frequency assignments for which it wishes to express a preference, consistent with its winnings for generic blocks in the clock phase. The price will represent a maximum payment that the bidder is willing to pay, in addition to the base price established in the clock phase for the generic blocks, for the frequency-specific license or licenses in its bid. If there are two categories, the Commission proposes that a bidder will submit its preferences for blocks it won in the 3.7–3.8 GHz and 3.8–3.98 GHz bands separately, rather than submitting bids for preferences that include blocks in both categories. That is, if a bidder won one block in Category A and two blocks in Category BC, it would not be able to submit a single bid amount for an assignment that included both categories. Instead, it would submit its bid or bids for assignments in Category A separately from its bid or bids for assignments in Category BC.

86. The Commission proposes to use an optimization approach to determine the winning frequency assignment for each category in each PEA or PEA group. The Commission proposes that the

an auction system will select the assignment that maximizes the sum of bid amounts among all assignments that satisfy the contiguity requirements. Furthermore, if multiple blocks in a category in a PEA remain unsold, the unsold licenses will be contiguous. The Commission proposes that the additional price a bidder will pay for a specific frequency assignment (above the base price) will be calculated consistent with a generalized “second price” approach—that is, the winner will pay a price that would be just sufficient to result in the bidder receiving that same winning frequency assignment while ensuring that no group of bidders is willing to pay more for an alternative assignment that satisfies the contiguity restrictions. The Assignment Phase Technical Guide provides mathematical details of this proposal. This price will be less than or equal to the price the bidder indicated it was willing to pay for the assignment. The Commission proposes to determine prices in this way because it facilitates bidding strategy for the bidders, encouraging them to bid their full value for the assignment, knowing that if the assignment is selected, they will pay no more than would be necessary to ensure that the outcome is competitive. The Commission proposes to determine prices using the Vickrey-nearest approach, which is described in the Assignment Phase Technical Guide.

87. The Commission seeks comment on these proposed procedures.

V. POST-AUCTION PROCESS

A. Deficiency Payments and Additional Default Payment Percentage

88. Any winning bidder that defaults or is disqualified after the close of an auction (i.e., fails to remit the required down payment by the specified deadline, fails to submit a timely long-form application, fails to make full and timely final payment, or is otherwise disqualified) is liable for a default payment under section 1.2104(g)(2) of the Commission’s rules. This payment consists of a deficiency payment, equal to the difference between the amount of the bidder’s winning bid and the amount of the winning bid the next time a license covering the same spectrum is won in an auction, plus an additional payment equal to a percentage of the defaulter’s bid or of the subsequent winning bid, whichever is less.

89. The Commission’s rules provide that, in advance of each auction, it will establish a percentage between 3% and 20% of the applicable winning bid to be assessed as an additional default

payment. As the Commission has indicated, the level of this additional payment in each auction will be based on the nature of the service and the licenses being offered.

90. For Auction 107, the Commission proposes to establish an additional default payment of 15%, which is consistent with that adopted for Auctions 101, 102, and 103. As noted in the CSEA/Part 1 Report and Order, 71 FR 6214, February 7, 2006, defaults weaken the integrity of the auction process and may impede the deployment of service to the public, and an additional default payment of up to 20% will be more effective in deterring defaults than the 3% used in some earlier auctions. At the same time, the Commission does not believe the detrimental effects of any defaults in Auction 107 are likely to be unusually great. In light of these considerations, the Commission proposes for Auction 107 an additional default payment of 15% of the relevant bid. The Commission seeks comment on this proposal.

91. In case they are needed for post-auction administrative purposes, the bidding system will calculate individual per-license prices that are separate from final auction payments, which are calculated on an aggregate basis. The bidding system will apportion to individual licenses any assignment phase payments and any capped bidding credit discounts, since in both cases, a single amount may apply to multiple licenses.

VI. TUTORIALS AND ADDITIONAL INFORMATION FOR APPLICANTS

92. The Commission intends to provide additional information on the bidding system and to offer demonstrations and other educational opportunities for applicants in Auction 107 to familiarize themselves with the FCC auction application system and the auction bidding system. For example, the Commission intends to release online tutorials that will help applicants understand the procedures to be followed in the filing of their auction short-form applications (FCC Form 175) and on the bidding procedures for Auction 107.

VII. VII. PROCEDURAL MATTERS

93. Supplemental Initial Regulatory Flexibility Analysis. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission has prepared a Supplemental Initial Regulatory Flexibility Analysis (Supplemental IRFA) of the possible significant economic impact on

small entities of the policies and rules addressed in the Auction 107 Comment Public Notice to supplement the Commission's Initial and Final Regulatory Flexibility Analyses completed in the 3.7 GHz NPRM and 3.7 GHz Report and Order, and other Commission orders pursuant to which Auction 107 will be conducted. Written public comments are requested on the Supplemental IRFA. Comments must be identified as responses to the Supplemental IRFA and must be filed by the same deadline for comments specified on the first page of the Auction 107 Comment Public Notice. The Commission will send a copy of the Auction 107 Comment Public Notice, including the Supplemental IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA). In addition, the Auction 107 Comment Public Notice and Supplemental IRFA (or summaries thereof) will be published in the Federal Register.

94. Need for, and Objectives of, the Proposed Rules. The Auction 107 Comment Public Notice sets forth the proposed auction procedures for those entities that seek to bid to acquire licenses in Auction 107. The Auction 107 Comment Public Notice seeks comment on proposed procedural rules to govern Auction 107, which will auction flexible-use overlay licenses for the 3.7 GHz Service in the 3.7–3.98 GHz band. This process is intended to provide notice of and adequate time for potential applicants to comment on proposed auction procedures. To promote the efficient and fair administration of the competitive bidding process for all Auction 107 participants, the Commission seeks comment on the following proposed procedures:

- Use of anonymous bidding/limited information procedures which will not make public: (1) the license areas that an applicant selects for bidding in its auction application (FCC Form 175); (2) the amount of any upfront payment made by or on behalf of an applicant for Auction 107; (3) an applicant's bidding eligibility; and (4) any other bidding-related information that might reveal the identity of the bidder placing a bid, until after bidding has closed;
- Establishment of bidding credit caps for eligible small businesses and rural service providers in Auction 107;
- Retention by OEA of discretion to adjust the bidding schedule in order to manage the pace of Auction 107;

- Use of a simultaneous stopping rule for Auction 107, under which all blocks in both categories in all PEAs would remain available for bidding until the bidding stops in every PEA;
- Provision of discretionary authority to OEA, in conjunction with WTB, to delay, suspend, or cancel bidding in Auction 107 for any reason that affects the ability of the competitive bidding process to be conducted fairly and efficiently;
- Use of a clock auction format for Auction 107 under which each qualified bidder will indicate in successive clock bidding rounds its demands for categories of generic blocks in specific geographic areas;
- Use of an activity rule that would require bidders to be active on between 90% and 100% of their bidding eligibility in all regular clock rounds;
- Use of an activity rule that does not include a waiver of the rule to preserve a bidder's eligibility;
- A specific minimum opening bid amount for products available in Auction 107;
- A specific upfront payment amount for products available in Auction 107;
- Establishment of a bidder's initial bidding eligibility in bidding units based on that bidder's upfront payment through assignment of a specific number of bidding units for each generic block;
- Establishment of acceptable bid amounts, including clock price increments and intra-round bids, along with a proposed methodology for calculating such amounts;
- A proposed methodology for processing bids and requests to reduce and increase demand;
- Establishment of an assignment phase that will determine which frequency-specific licenses will be won by the winning bidders of generic blocks during the clock phase; and
- Establishment of an additional default payment of 15% under section 1.2104(g)(2) of the Commission's rules in the event that a winning bidder defaults or is disqualified after the auction.

95. The proposed procedures for the conduct of Auction 107 constitute the more specific

implementation of the competitive bidding rules contemplated by Parts 1 and 30 of the Commission's rules, the 3.7 GHz Report and Order, and relevant competitive bidding orders, and are fully consistent therewith.

96. Legal Basis. The Commission's statutory obligations to small businesses under the Communications Act of 1934, as amended, are found in sections 309(j)(3)(B) and 309(j)(4)(D). The statutory basis for the Commission's competitive bidding rules is found in various provisions of the Communications Act of 1934, as amended, including 47 U.S.C. 154(i), 301, 302, 303(e), 303(f), 303(r), 304, 307, and 309(j). The Commission has established a framework of competitive bidding rules, updated most recently in 2015, pursuant to which it has conducted auctions since the inception of the auctions program in 1994 and would conduct Auction 107. In promulgating those rules, the Commission conducted numerous RFA analyses to consider the possible impact of those rules on small businesses that might seek to participate in Commission auctions. In addition, a Final Regulatory Flexibility Analysis (FRFA) is included in the concurrent rulemaking order that adopts rule provisions relevant to the Auction 107 Comment Public Notice.

97. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply. The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules and policies, if adopted. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. Pursuant to 5 U.S.C. 601(3), the statutory definition of a small business applies unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register. A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

98. Regulatory Flexibility Analyses were incorporated into the 3.7 GHz NPRM and the 3.7 GHz Report and Order. In those analyses, the Commission describes in detail the small entities that might be significantly affected. In the Auction 107 Comment Public Notice, the Commission incorporated by reference the descriptions and estimates of the number of small entities from the previous Regulatory Flexibility Analyses in the 3.7 GHz NPRM and the 3.7 GHz Report and Order.

99. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities. The Commission designed the auction application process itself to minimize reporting and compliance requirements for applicants, including small business applicants. In the first part of the Commission's two-phased auction application process, parties desiring to participate in an auction file streamlined, short-form applications in which they certify under penalty of perjury as to their qualifications. Eligibility to participate in bidding is based on an applicant's short-form application and certifications, as well as its upfront payment. In the second phase of the process, winning bidders file a more comprehensive long-form application. Thus, an applicant which fails to become a winning bidder does not need to file a long-form application and provide the additional showings and more detailed demonstrations required of a winning bidder.

100. The Commission does not expect the processes and procedures proposed in the Auction 107 Comment Public Notice will require small entities to hire attorneys, engineers, consultants, or other professionals to participate in Auction 107 and comply with the procedures the Commission ultimately adopts because of the information, resources, and guidance the Commission makes available to potential and actual participants. For example, the Commission intends to release an online tutorial that will help applicants understand the procedures for filing of the auction short-form application (FCC Form 175). The Commission also intends to make information on the bidding system available and offer demonstrations and other educational opportunities for applicants in Auction 107 to familiarize themselves with the FCC auction application system and the auction bidding system. By providing these resources as well as the resources discussed in the Auction 107 Comment Public Notice, the Commission expects small business entities who use the available resources to experience lower participation and

compliance costs. Nevertheless, while the Commission cannot quantify the cost of compliance with the proposed procedures, it does not believe that the costs of compliance will unduly burden small entities that choose to participate in the auction because the proposals for Auction 107 are similar in many respects to the procedures in recent auctions conducted by the Commission.

101. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.

102. The Commission has taken steps to minimize any economic impact of its auction procedures on small businesses through, among other things, the many resources the Commission provides potential auction participants. Small entities and other auction participants may seek clarification of or guidance on complying with competitive bidding rules and procedures, reporting requirements, and the FCC's auction bidding system. An FCC Auctions Hotline provides access to Commission staff for information about the auction process and procedures. The FCC Auctions Technical Support Hotline is another resource which provides technical assistance to applicants, including small entities, on issues such as access to or navigation within the electronic FCC Form 175 and use of the FCC's auction bidding system. Small entities may also use the web-based, interactive online tutorial produced by Commission staff to familiarize themselves with auction procedures, filing requirements, bidding procedures, and other matters related to an auction.

103. The Commission also makes various databases and other sources of information, including the Auctions program websites and copies of Commission decisions, available to the public without charge, providing a low-cost mechanism for small entities to conduct research prior to and

throughout the auction. Prior to and at the close of Auction 107, the Commission will post public notices on the Auctions website, which articulate the procedures and deadlines for the auction. The Commission makes this information easily accessible and without charge to benefit all Auction 107 applicants, including small entities, thereby lowering their administrative costs to comply with the Commission's competitive bidding rules.

104. Prior to the start of bidding, eligible bidders are given an opportunity to become familiar with auction procedures and the bidding system by participating in a mock auction. Further, the Commission intends to conduct Auction 107 electronically over the Internet using its web-based auction system that eliminates the need for bidders to be physically present in a specific location. Qualified bidders also have the option to place bids by telephone. These mechanisms are made available to facilitate participation in Auction 107 by all eligible bidders and may result in significant cost savings for small business entities that use these alternatives. Moreover, the adoption of bidding procedures in advance of the auction, consistent with statutory directive, is designed to ensure that the auction will be administered predictably and fairly for all participants, including small entities.

105. For Auction 107, the Commission proposes a \$25 million cap on the total amount of bidding credits that may be awarded to an eligible small business and a \$10 million cap on the total amount of bidding credits that may be awarded to a rural service provider. In addition, the Commission propose a \$10 million cap on the overall amount of bidding credits that any winning small business bidder may apply to winning licenses in markets with a population of 500,000 or less. Based on the technical characteristics of the 3.7–3.98 band and the Commission's analysis of past auction data, the Commission anticipates that its proposed caps will allow the majority of small businesses to take full advantage of the bidding credit program, thereby lowering the relative costs of participation for small businesses.

106. The proposed procedures for the conduct of Auction 107 constitute the more specific implementation of the competitive bidding rules contemplated by Parts 1 and 30 of the Commission's rules, the 3.7 GHz Report and Order, and relevant competitive bidding orders, and are fully consistent therewith.

107. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules. None.

108. Ex Parte Rules. This proceeding has been designated as a “permit-but-disclose” proceeding in accordance with the Commission’s ex parte rules. Persons making oral ex parte presentations must file a copy of any written presentations or memoranda summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine Period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentations must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to the Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with Commission rule 1.1206(b). In proceedings governed by Commission rule 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s ex parte rules.

Federal Communications Commission.

Cecilia Sigmund,

Federal Register Liaison Officer

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